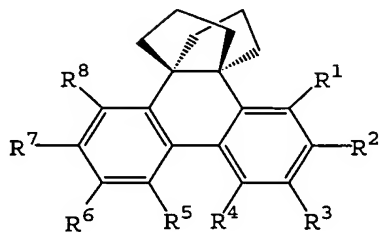


What is claimed is:

- 1 1. A phenanthrene compound of formula (I):



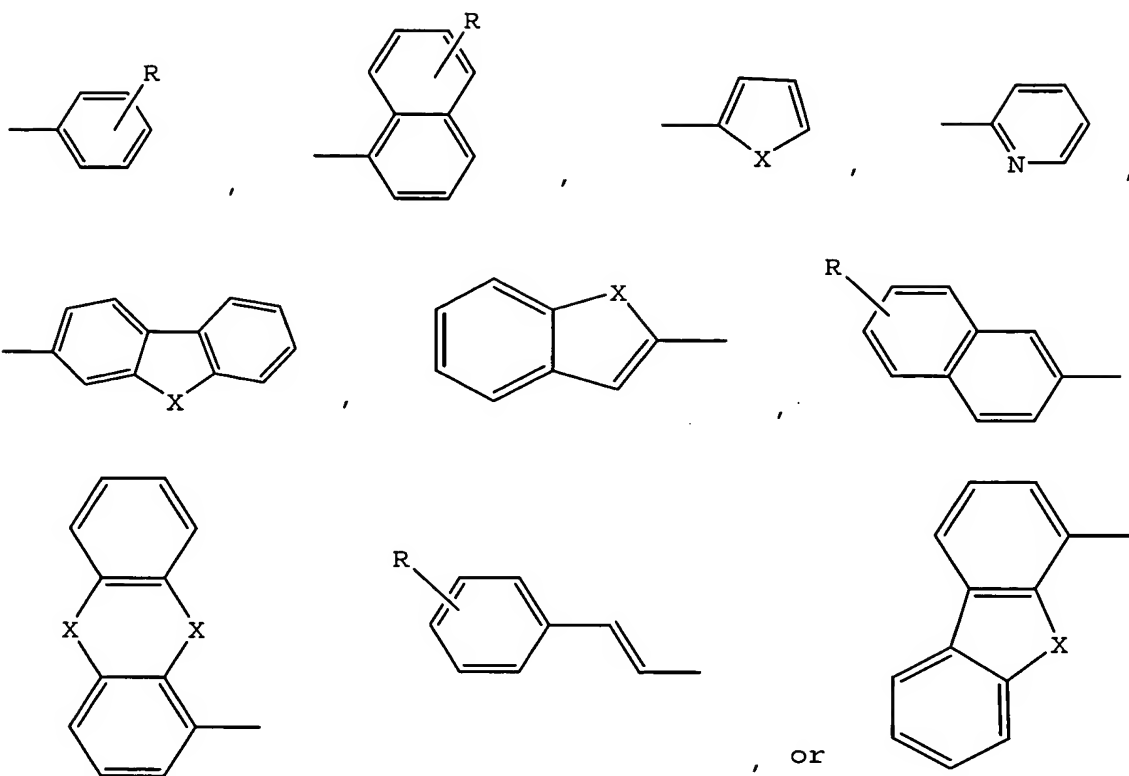
Formula (I)

- 2 wherein, each R^1 , R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , and R^8 is
 3 independently hydrogen, halogen, C_{1-6} alkyl, C_{1-6}
 4 alkoxy, or a conjugated group.

- 1 2. The phenanthrene compound as claimed in claim 1,
 2 wherein one of R^1 , R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , and R^8 is a
 3 conjugated group.

- 1 3. The phenanthrene compound as claimed in claim 2,
 2 wherein the conjugated group is a substituted or
 3 unsubstituted phenyl, substituted or unsubstituted
 4 heterocyclic group, substituted or unsubstituted polycyclic
 5 phenyl, or substituted or unsubstituted polycyclic
 6 heterocyclic group.

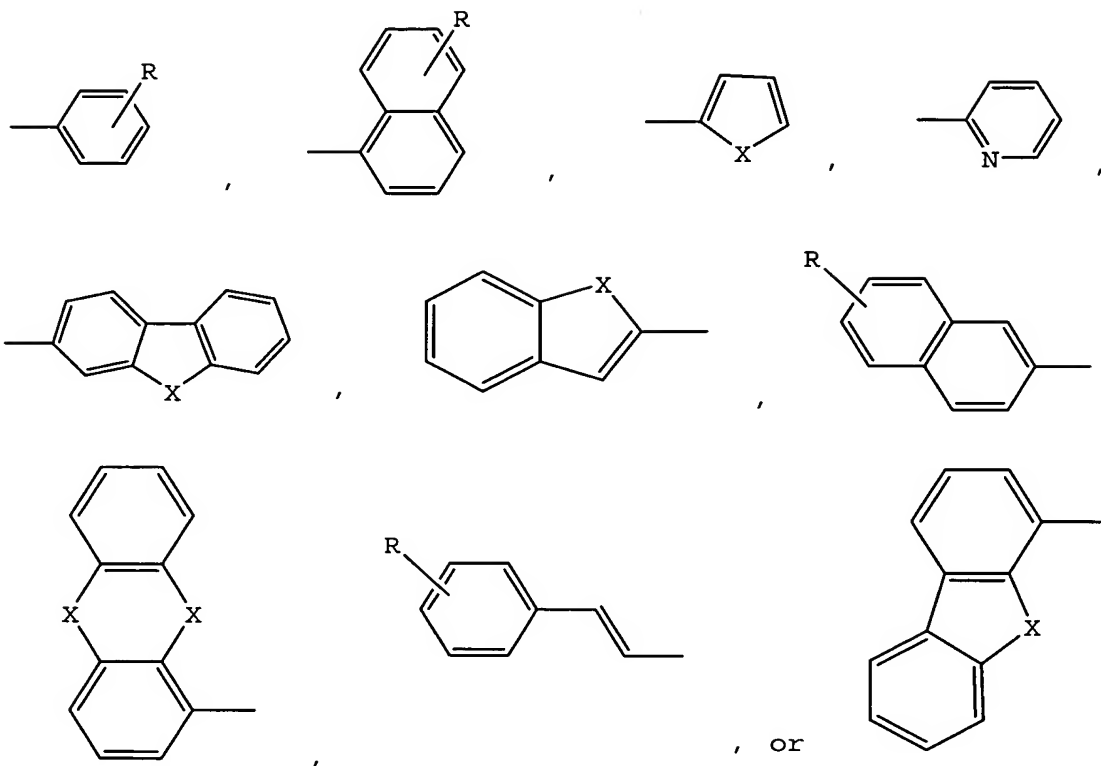
- 1 4. The phenanthrene compound as claimed in claim 3,
 2 wherein the conjugated group is:



wherein R is C₁₋₆ alkyl or C₁₋₆ alkoxy, and X is S, O, or

N.

5. The phenanthrene compound as claimed in claim 2,
wherein R² or R⁷ is



3

4 wherein R is C₁₋₆ alkyl or C₁₋₆ alkoxy, and X is S, O, or
5 N.

1 6. The phenanthrene compound as claimed in claim 5,
2 wherein R¹, R³, R⁴, R⁵, R⁶, and R⁸ are hydrogen.

1 7. The phenanthrene compound as claimed in claim 6,
2 wherein R² and R⁷ are each halogen.

1 8. The phenanthrene compound as claimed in claim 7,
2 wherein R² and R⁷ are each bromine.

1 9. The phenanthrene compound as claimed in claim 6,
2 wherein R² and R⁷ are each naphthyl.

1 10. The phenanthrene compound as claimed in claim 6,
2 wherein R² and R⁷ are each ethoxyphenyl.

1 11. The phenanthrene compound as claimed in claim 6,
2 wherein R² and R⁷ are each butylphenyl.